

## PRELIMINARY AMENDMENT

Dear Sir:

Prior to examination of the above-referenced application, please amend the application as follows:

### In the Specification:

Please amend the Specification as follows:

On page 1, Prior to "Background" please insert

-- Related Applications

The present application is a divisional application of U.S. Patent Application Serial No. 09/836,851 filed April 16, 2001, now U.S. Patent No. \_\_\_\_\_. --

On page 21, please amend paragraph 0062 as follows:

[0062] Disposed within the first connector 108 is a sample cell 124. As will be discussed in additional detail below, the sample cell 124 is used in conjunction with an optical sensor (not shown) to optically determine the presence of air bubbles within the conduit 120. The sample cell 124 is preferably triangular and has sidewall which are offset from one another at an angle of between about 47-70 degrees. In a presently preferred embodiment, the sample cell 124 is made with a wall which forms an equilateral triangle with two sidewalls being disposed at an angle of about 50 to 60 degrees. Such an angle allows light emitted from the optical sensor to be refracted in a first direction if the conduit 120 is filled with liquid, and a second direction if the conduit has any appreciable amount

of air. The refracted light, or relative absence thereof, indicates the relative size of the air bubble. A more detailed discussion regarding bubble detection is found in U.S. Patent Application Serial No. 09/836,840, now U.S. Patent No. 6,531,708, (~~Co-filed herewith and identified as Attorney Docket No. 0906.ZEVX.PT~~) which is expressly incorporated herein.

Beginning on page 24, please amend paragraph 0072 as follows:

**[0072]** To properly determine the flow through an infusion set, and to properly determine the presence of occlusions in an infusion set, it is advantageous to monitor pressure within the infusion set. This can be accomplished either by pressure sensors, such as those discussed in U.S. Patent No.5,720,721, or by an optical detector as discussed in co-pending U.S. Patent Application No. 09/836,852 (Filed concurrently herewith and identified as attorney docket no. 0908.ZEVX.PT, and which is expressly incorporated herein), now U.S. Patent No. 6,523,414. As is explained more fully in the co-pending application, the pressure in the infusion set can be determined by having the tube occlude light in an optical sensor. As the tube expands due to increased pressure or contracts due to a vacuum caused by occlusions, etc., the amount of light which is received by the optical sensor changes, thereby indicating the change in pressure in the tube.

On page 28, please amend paragraph 0081 as follows:

**[0081]** While the workings of the anti-freeflow mechanism 300 are discussed in additional detail below, numerous different embodiments of anti-freeflow mechanisms which can be used with the present invention are discussed in U.S. Patent Application Serial No.09/569,332, and co-flied U.S.

Patent Application Serial No. 09/836,850 (identified as attorney file 0905.ZEVX.CI), both of which are expressly incorporated herein.

On page 33, please amend paragraph 0091 as follows:

[0091] The vacuum will cause the monitoring portion 234 of the pump engaging portion 200 to collapse to a greater degree and remain in a collapsed state for a longer period of time. The optical sensor detects the collapse because more light will be detected by the optical detector and for a longer period of time. The pump 320 monitors the readings of the optical sensor. If the readings of the optical detector fall outside of a predetermined range, the pump 320 will generate an alarm indicating the presence of an occlusion. It may also automatically stop the pump 320 until the occlusion situation has been resolved. A more detailed discussion of the interaction between the optical sensor and the monitoring portion 234 of the infusion set 310 is set forth below. Additionally, co-filed U.S. Patent Application Serial No. 09/836,852, now U.S. Patent No. 6,523,414 (identified as Attorney Docket No. 0908.ZEVX.PT) contains a detailed discussion of numerous different applications of such a pressure sensor and is expressly incorporated herein.